

34. (new) A compound as claimed in claim 32, which is capable of binding a domain of the PAP1 protein, or a homolog thereof, responsible for the interaction with parkin.

35. (new) A compound as claimed in claim 32, which is a peptide, nucleic acid, lipid, saccharide, or antibody.

36. (new) A compound as claimed in claim 35, which is a peptide comprising all or part of the amino acid sequence of SEQ ID NO. 2, or a derivative thereof.

37. (new) A compound as claimed in 35, which is a peptide comprising all of or a functional part of the interaction site of the PAP1 protein with parkin.

38. (new) A compound as claimed in claim 35, which is a peptide compound derived from the PAP1 protein, or homolog form thereof, and which bears an effector region that has been rendered nonfunctional.

39. (new) A polypeptide comprising the amino acid sequence of one of SEQ ID NO. 2, 13, 15, 43, or 45, or a variant or derivative or fragment thereof.

40. (new) A polypeptide as claimed in claim 39, comprising 5 consecutive residues of the amino acid sequence of SEQ ID NO. 2.

41. (new) A polypeptide as claimed in claim 39, comprising 9 consecutive residues of the amino acid sequence of SEQ ID NO. 2.

42. (new) A polypeptide as claimed in claim 39, comprising 15 consecutive residues of the amino acid sequence of SEQ ID NO. 2.

43. (new) A polypeptide as claimed in claim 39, comprising 5 consecutive residues of the amino acid sequence of one of SEQ ID NO: 13, 15, 43, or 45.

44. (new) A polypeptide as claimed in claim 39, comprising 9 consecutive residues of the amino acid sequence of one of SEQ ID NO: 13, 15, 43, or 45.

45. (new) A polypeptide as claimed in claim 39, comprising 15 consecutive residues of the amino acid sequence of one of SEQ ID NO: 13, 15, 43, or 45.

46. (new) A nucleic acid encoding a polypeptide as claimed in claim 39.

47. (new) A nucleic acid as claimed in claim 46, which comprises all or part of the nucleotide sequence of SEQ ID NO. 1 or a sequence derived from SEQ ID NO: 1.

48. (new) A nucleic acid capable of hybridizing with a nucleic acid as claimed in claim 46 or the complementary strand.

49. (new) A vector comprising a nucleic acid as claimed in claim 46.

50. (new) A recombinant, replication-defective virus comprising a nucleic acid as

claimed in claim 46.

51. (new) An antibody, antibody fragment, or derivative, directed against a peptide comprising all or part of the amino acid sequence of SEQ ID NO. 2, or a derivative thereof.

52. (new) An antibody as claimed in claim 51, capable of specific binding to a polypeptide having an amino acid sequence of one of SEQ ID NO. 2, 13, 15, 43, or 45, or a variant or derivative or fragment thereof.

53. (new) A composition comprising at least one compound as claimed in claim 32 and a pharmaceutically acceptable vehicle or excipient.

54. (new) A composition comprising an antibody as claimed in claim 52 and a pharmaceutically acceptable vehicle or excipient.

55. (new) A non-peptide compound or compound not composed exclusively of amino acid residues, which is capable of modulating the interaction of the PAP1 protein, or a homolog thereof, with parkin.

62. (new) A method for producing a polypeptide as claimed in claim 39, comprising culturing a cell containing a nucleic acid encoding the polypeptide under conditions for expressing said nucleic acid, and recovering the polypeptide produced.